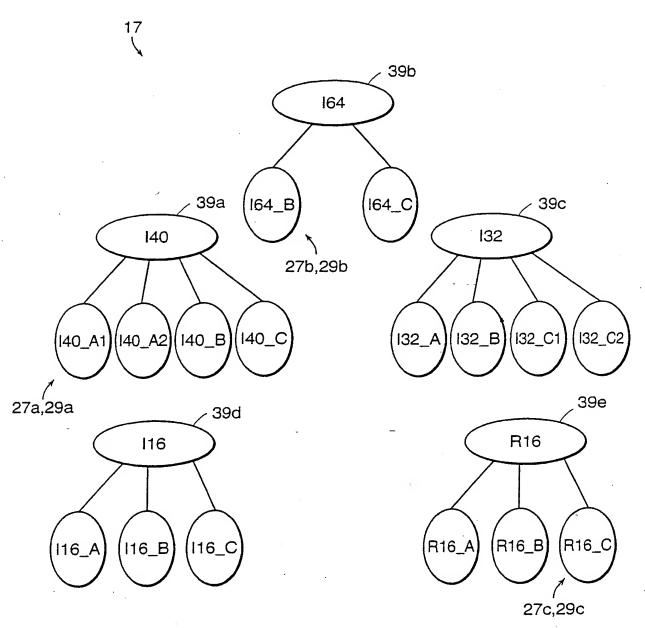Docket/App No.: 2376.1001-003
Title:Method and Apparatus for Accurately....
Inventors: Anastasios S. Maurudis et al.

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39b

I64

I64_B   I64_C

39a   27b,29b   39c

I40   I32

I40_A1 I40_A2 I40_B I40_C   I32_A I32_B I32_C1 I32_C2

27a,29a

39d   39e

I16   R16

I16_A I16_B I16_C   R16_A R16_B R16_C

27c,29c

POWER STRUCTURE OF CLASS HIERARCHY
FOR EXAMPLE LIBRARY

FIG. 1

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```
FLOAT func1(FLOAT);
FLOAT func2(FLOAT);  ← 25
void main{
FLOAT a,b,c;
b=func1(a);
c=func2(b);
return 0;}
```

Pure FLOAT Model

FIG. 2

```
ToInt func1(ToInt);
I64_B func1(I64_B);
FLOAT func2(FLOAT);
void main{
ToInt a,b;            ← 33a
FLOAT c;
b=func1(a);
c=func2(b.data);

return 0;}
ToInt func1(ToInt d)
{I64_B e(d);
 I64_B f;
 f=func1(e);
 return (ToInt) f;}
```

Mixed Model

FIG. 3

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```
FLOAT func1(FLOAT);
ToInt func2(ToInt);
I64_B func2(I64_B);
void main{
FLOAT a;
ToInt b,c;
b.data=func1(a);          ←33b
c=func2(b);
return 0;}
ToInt func2(ToInt d)
{I64_B e(d);
 I64_B f;
 f=func2(e);
 return (ToInt)f;}
```

Mixed Model

FIG. 4

```
I64_B func1(I64_B);
I64_B func2(I64_B);   ←35
void main{
I64_B a,b,c;
b=func1(a);
c=func2(b);
return 0;
```

Pure Fixed Model

FIG. 5

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Inventors: Anastasios S. Maurudis et al.

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32	33	34	35	36	37	38	39
AG 0	AG 1	AG 2	AG 3	AG 4	AG 5	AG 6	AG 7

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
AH 0	AH 1	AH 2	AH 3	AH 4	AH 5	AH 6	AH 7	AH 8	AH 9	AH 10	AH 11	AH 12	AH 13	AH 14	AH 15

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AL 0	AL 1	AL 2	AL 3	AL 4	AL 5	AL 6	AL 7	AL 8	AL 9	AL 10	AL 11	AL 12	AL 13	AL 14	AL 15

Layout of TMS320C54x Accumulator A

FIG. 6

cket App No.: 2576.1001-005
Title:Method and Apparatus for Accurately....
Inventors: Anastasios S. Maurudis et al.

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39	38	37	36	35	34	33	32
BG 7	BG 6	BG 5	BG 4	BG 3	BG 2	BG 1	BG 0

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
BH 15	BH 14	BH 13	BH 12	BH 11	BH 10	BH 9	BH 8	BH 7	BH 6	BH 5	BH 4	BH 3	BH 2	BH 1	BH 0

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
BL 15	BL 14	BL 13	BL 12	BL 11	BL 10	BL 9	BL 8	BL 7	BL 6	BL 5	BL 4	BL 3	BL 2	BL 1	BL 0

Layout of TMS320C54x Accumulator B

FIG. 7

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Title:Method and Apparatus for Accurately....
Inventors: Anastasios S. Maurudis et al.

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32	33	34	35	36	37	38	39
G0	G1	G2	G3	G4	G5	G6	G7
gh 24	gh 25	gh 26	gh 27	gh 28	gh 29	gh 30	gh 31

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
H 0	H 1	H 2	H 3	H 4	H 5	H 6	H 7	H 8	H 9	H 10	H 11	H 12	H 13	H 14	H 15
gh 8	gh 9	gh 10	gh 11	gh 12	gh 13	gh 14	gh 15	gh 16	gh 17	gh 18	gh 19	gh 20	gh 21	gh 22	gh 23

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L 0	L 1	L 2	L 3	L 4	L 5	L 6	L 7	L 8	L 9	L 10	L 11	L 12	L 13	L 14	L 15
low 0	low 1	low 2	low 3	low 4	low 5	low 6	low 7	gh 0	gh 1	gh 2	gh 3	gh 4	gh 5	gh 6	gh 7

Layout of I40 class data members

FIG. 8

Docket/App No.: 2376.1001-003
Title:Method and Apparatus for Accurately....
Inventors: Anastasios S. Maurudis et al.

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POWER STRUCTURE OF A CLASS HIERARCHY

FIG. 9

Docket/App No.: 2576.1001-003
Title:Method and Apparatus for Accurately....
Inventors: Anastasios S. Maurudis et al.

FIG. 10